

Please type a plus sign (+) in this box



PTO/SB (12-97)

Approved for use through 9/30/00. OMB 0651-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Modified Form 1449/PTO  <b>SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)	<b>Application Number</b>	10/806,793
	<b>Filing Date</b>	March 22, 2004
	<b>First Named Inventor</b>	Johansen
	<b>Group Art Unit</b>	1649
	<b>Examiner Name</b>	Kimberly A. Ballard
	<b>Attorney Docket Number</b>	19313-001 CON

U.S. PATENT DOCUMENTS							
Exam Initials	Cite No.	U.S. Patent Document No.	Issue Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date If Appropriate
/KAB/	*A1	4,883,666	11/28/89	Sabel, <i>et al.</i>			
	*A2	5,084,350	1/28/92	Chang, <i>et al.</i>			
	*A3	5,284,761	2/8/94	Aebischer, <i>et al.</i>			
	*A4	5,496,804	3/5/96	Reed, <i>et al.</i>			
	*A5	5,618,531	4/8/97	Cherksey			
	*A6	5,733,729	3/31/98	Lipshutz, <i>et al.</i>			
	*A7	5,754,524	5/19/98	Wark			
	*A8	5,795,716	8/18/98	Chee, <i>et al.</i>			
	*A9	5,800,992	9/1/98	Fodor, <i>et al.</i>			
	*A10	5,834,029	10/10/98	Bellamkonda, <i>et al.</i>			
↓	*A11	5,916,555	6/29/99	Lee, <i>et al.</i>			
/KAB/	*A12	6,284,540	09/04/01	Milbrandt et al.			

U.S. PUBLISHED APPLICATION DOCUMENTS							
Exam Initials	Cite No.	U.S. Published Application No.	Published Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date If Appropriate
/KAB/	*A13	20020002269	01/03/02	Milbrandt et al.			

FOREIGN PATENT DOCUMENTS							
Exam Initials	Cite No.	Foreign Patent Document Office	Number	Name of Patentee(s) or Applicant(s)	Date of Publication	Translation Yes	No
/KAB/	*B1	WO	00/04050	Janssen Pharmachulica N.V.	01/27/00		
↓	*B2	WO	00/18799	Washington University	04/06/00		
	*B3	WO	93/06116	Lin, <i>et al.</i>	04/01/93		
↓	*B4	WO	97/08196	Johnson, <i>et al.</i>	03/06/97		
/KAB/	*B5	WO	98/32869	Johansen, <i>et al.</i>	07/30/98		

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
/KAB/	*C1	Accession Number AC005051, Waterson, 1998
	*C2	Accession Number AF0G7197, Li, 1998
	*C3	Accession Number AAN40033, Gray et al., 1992
	*C4	Airaksinen, <i>et al.</i> , 1999. GDNF family neurotrophic factor signaling: Four masters, one servant?. <i>Mol. Cell. Neurosci.</i> 13: 313-325.
	*C5	Anderson, 1998. Human gene therapy <i>Nature</i> 392:25-30
	*C6	Atschul, <i>et al.</i> , 1997. Gapped BLAST and PSI-BLAST: a new generation of protein database search programs. <i>Nucl. Acids Res.</i> 25: 3389-3402.
	*C7	Baloh, <i>et al.</i> , 1998. Artemin, a novel member of the GDNF ligand family, supports peripheral and central neurons and signals through the GFR $\alpha$ 3-RET receptor complex. <i>Neuron</i> 21: 1291-1302
	*C8	Borodovsky, <i>et al.</i> , 1995. Detection of new genes in a bacterial genome using Markov models for three gene classes. <i>Nucl. Acids Res.</i> 23: 3554-3562.
	*C9	Daopin, <i>et al.</i> , 1993. Crystal structure of TGF- $\beta$ 2 refined at 1.8 Å resolution. <i>Proteins</i> 17: 176-192.
	*C10	Dring et al., 1998. Towards gene therapy for the central nervous system <i>Mol. Med.</i> 11:485-493
	*C11	Eigenbrot and Gerber, 1997. X-ray structure of glial cell-derived neurotrophic factor at 1.9 Å resolution and implications for receptor binding. <i>Nat. Struct. Biol.</i> 4: 435-438.
	*C12	Finsen, <i>et al.</i> , 1992. Somatostatin and neuropeptide Y in organotypic slice cultures of the rat hippocampus: an immunocytochemical and in situ hybridization study. <i>Neurosci.</i> 47:105-113.
	*C13	Friedmann, 2000. Principles for human gene therapy studies <i>Science</i> 287:2163-2164
	*C14	Lapchak, <i>et al.</i> , <i>Pharmacological characterization of glial cell line-derived neurotrophic factor (GDNF): implications for GDNF as a therapeutic molecule for treating neurodegenerative diseases</i> , Cell Tissue Res. 286: 179-189 (1996).
	*C15	Lapchak, <i>Therapeutic potentials for glial cell line-derived neurotrophic factor (GDNF) based upon pharmacological activities in the CNS</i> , Rev. Neurosci. 7: 165-176 (1997).
	*C16	Lin, <i>et al.</i> , 1993. GDNF: A glial cell line-derived neurotrophic factor for midbrain dopaminergic neurons, <i>Science</i> 260: 1130-1132.
	*C17	Lorenz, <i>et al.</i> , 1996. Heteromultimeric CLC chloride channels with novel properties. <i>Proc. Natl. Acad. Sci. USA</i> 93: 13362-13366.
	*C18	Massagué, <i>et al.</i> , 1994. The TGF- $\beta$ family and its composite receptor, <i>Trends Cell Biol.</i> 4: 172-178.
	*C19	Masure <i>et al.</i> , <i>Enovin, a member of the glial cell-line-derived neurotrophic factor (GDNF) family with growth promoting activity on neuronal cells</i> . Eur. J. Biochem. 266: 892-902 (1999).
	*C20	McDonald & Hendrickson, 1993. A structural superfamily of growth factors containing a cystine knot motif, <i>Cell</i> 73: 421-424.
	*C21	Milbrandt, <i>et al.</i> , 1998. Persephin, a novel neurotrophic factor related to GDNF and neurturin.. <i>Neuron</i> 20: 245-253
	*C22	Nucleotide Sequence Database EMBL Entry AA844072, Accession No. AA844072, March 10, 1998.
	*C23	Robertson and Manson, <i>The GDNF-RET signalling in partnership</i> , Trends Genet. 13: 1-3 (1997).
	*C24	Rosenberg et al., 2000. Gene therapist, heal thyself. <i>Science</i> 287:1751
	*C25	Rosenblad et al., 2000. In vivo protection of nigral dopamine neurons by lentiviral gene transfer of the novel GDNF-family member neublastin/artemin <i>Mol. Cell. Neurosci.</i> 15:199-214
	*C26	Sanicola, <i>et al.</i> , 1997. Glial cell line-derived neurotrophic factor-dependent RET activation can be mediated by two different cell-surface accessory proteins. <i>Proc Natl Acad Sci USA</i> 94: 6238-6243.
	*C27	Sauer and Oertel, 1994. Progressive degeneration of nigrostriatal dopamine neurons following intrastriatal terminal lesions with 6-hydroxydopamine: a combined retrograde tracing and immunocytochemical study in the rat. <i>Neuroscience</i> 59: 401-415
	*C28	Slooth and Gramsbergen, 1995. Detection of salicylate and its hydroxylated adducts 2,3- and 2,5-dihydroxybenzoic acids as possible indices for in vivo hydroxyl radical formation in combination with catechol- and indoleamines and their metabolites in cerebrospinal fluid and brain tissue. <i>J. Neurosci. Meth.</i> 60: 141-149.
	*C29	Stoppini, <i>et al.</i> , 1991. A simple method for organotypic cultures of nervous tissue. <i>J. Neurosci. Methods</i> 37: 173-182.
✓	*C30	Thompson, <i>et al.</i> , 1997. The ClustalX windows interface: flexible strategies for multiple sequence alignment aided by quality analysis tools. <i>Nuc. Acids Res.</i> 25 : 4876-4882.
/KAB/	*C31	Unsicker, <i>GDNF: a cytokine at the interface of TGF-betas and neurotrophins</i> , Cell Tissue Res. 286: 175-178 (1996).

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
/KAB/	*C32	Verma et al., 1997. Gene therapy-promises, problems and prospects <i>Nature</i> pp. 239-242
↓	*C33	Verma, 2000. Gene therapy: beyond 2000 <i>Mol. Ther.</i> , 6:493
↓	*C34	Vermus, 1996. Gene therapy: not ready for prime time <i>Nat. Med.</i> 2:7-8
↓	*C35	von Schwedler, <i>et al.</i> , 1993. Vif is crucial for human immunodeficiency virus type 1 proviral DNA synthesis in infected cells. <i>J. Virol.</i> 67: 4945-4955.
/KAB/	*C36	Zufferey, <i>et al.</i> , 1997. Multiply attenuated lentiviral vector achieves efficient gene delivery in vivo. <i>Nat. Biotechnol.</i> 1997 15: 871-875.

\* a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior applications, Serial Nos. 09/662,183, filed September 15, 2000, and 09/347,613, filed July 2, 1999, and relied upon for an earlier filing date under 35 U.S.C. §120 (continuation, continuation-in-part, and divisional applications).

Examiner Signature	/Kimberly Ballard/	Date Considered	09/21/2007
--------------------	--------------------	-----------------	------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.